ADVANCED SURVEYING

ASSIGNMENT NO.1

1. What is the principle of plane table survey?
2. State the different accessories used in plane table survey.
3. Explain with neat sketch the method of radiation.
4. What are the errors that may occur in plane table surveying?
5. What are the precautions to be taken in plane table surveying?
6. State the advantages and disadvantages of plane table.

ADVANCED SURVEYING

ASSIGNMENT NO.2

1. Define
   - Centering
   - Face left
   - Face right
   - Telescope normal
   - Telescope inverted
2. Explain the process of temporary adjustment of a theodolite
3. Describe the process of measuring horizontal angle.
4. Describe the procedure of measuring deflection angles
5. Describe the process of measuring magnetic bearing of a line by a theodolite.
6. Explain the checks in open and closed traverse .
7. ABCDA is a closed traverse in which the bearing of DA and length of BC have not been recorded. The rest of the field records are as follows :

Line	Length (m)	Bearing
AB	335	181®18'
BC	?	90®00'
CD	408	357®36'
DA	828	?

ADVANCED SURVEYING

ASSIGNMENT NO.3

1. Explain the theory of stadia tacheometry.
2. Describe the methods of determining the constants of a tacheometer from field measurements.
3. What are the sources of error in tacheometry?
4. A tacheometer fitted with an analytic lens and having a multiplying constant of 100 was set up at R which is intermediate point on a traverse leg AB. The following readings were taken with staff held vertically

Staff station	Bearing	Vertical angle	Intercept	Axial hair reading
A	40®35'	-4®24'	2021	1.99
B	22®35'	-5®12'	2.02	1.90

Calculate the length of AB and the level difference between A & B.

ADVANCED SURVEYING

ASSIGNMENT NO.4

1. Derive a relation between the radius and degree of a curve.
2. What are the different types of curves? Explain with neat sketch.
3. Describe the method of setting a simple circular curve by Rankine's deflection angle method.
4. Explain transition curve
5. Tabulate the data required for setting out a curve by deflection angle method, considering the following info.
   - Angle of intersection=145®
   - Chainage of point of intersection=1580 m
   - Degree of curve=5®
   - Peg interval=30 m

ASSIGNMENT NO.5

1. State modern surveying instruments.
2. Give classification of EDM instruments.
3. State the uses of total station.
4. State the features of total station.
5. Describe the layout of a small building by using total station.
6. State the principle of EDM with sketch
7. State the advantages of total station.

ASSIGNMENT NO.6

1. Differentiate between passive & active sensors.
2. State with sketch principle of remote sensing.
3. State the applications of remote sensing.
4. Define GIS. Enlist the key components of GIS
5. Explain Sources of error in GIS.
6. State the uses of GPS.